Introduction

The Fallon Range Training Complex (FRTC) is the Navy's premier aviation training range, supporting aviation and ground training, including live-fire training. The Navy trains 100 percent of deploying naval aviation and naval special warfare units at the FRTC. The Navy's ability to counter evolving current and future threats worldwide depends on the effectiveness of its aviation training requirements. However, the FRTC ranges have not changed substantially in size or configuration since the 1990s. The FRTC currently operates with significant gaps in aviation weapons training and ground mobility training capabilities. The current size of the bombing (B) ranges and the Dixie Valley Training Area (DVTA) severely restricts the extent to which the Navy can use its weapons systems to train (Figure 1), leaving aircrews and special operations forces unable to train in sufficiently realistic conditions.

The modernization of the FTRC will fulfill a critical need for meeting current and future training requirements and assuring mission readiness. The FRTC Team's ("Team") preparation of the Environmental Impact Statement (EIS) was an essential and exemplary process for developing a comprehensive and legally defensible analysis; meaningfully involving a large cadre of Indian Tribes, stakeholders, and the public; and meeting an aggressive and immovable schedule to achieve the ultimate goal of ensuring the safety and success of service members in combat.

The proposed action included the renewal of the Navy's current public land withdrawal, land range expansion through additional withdrawal of federal land, acquisition of non-federal land, and airspace reconfigurations. The Team worked with 13 federally recognized Indian Tribes and the Inter-Tribal Council of Nevada. Fourteen local, state, and federal agencies served as formal cooperating agencies to ensure a comprehensive analysis of potential environmental impacts. The Team established a communication forum and held dozens of meetings with Tribal participants and cooperating agencies at all stages of the EIS development to discuss Tribal and constituent concerns, improve the analysis of potential impacts, and develop viable mitigation measures.

Tribal, stakeholder, and public involvement proved to be a critical component of the project's successful completion. Valuable input from Tribes, the State, cooperating agencies, and the public spurred the Team to develop an alternative that best balanced the Navy's operational needs, minimized environmental impacts, and allowed continued public access to ranges to the maximum extent practicable. This collaborative and iterative alternative development process provided participants with a better understanding of the Navy's operational constraints and safety requirements, and increased stakeholders' willingness to accept the decision.

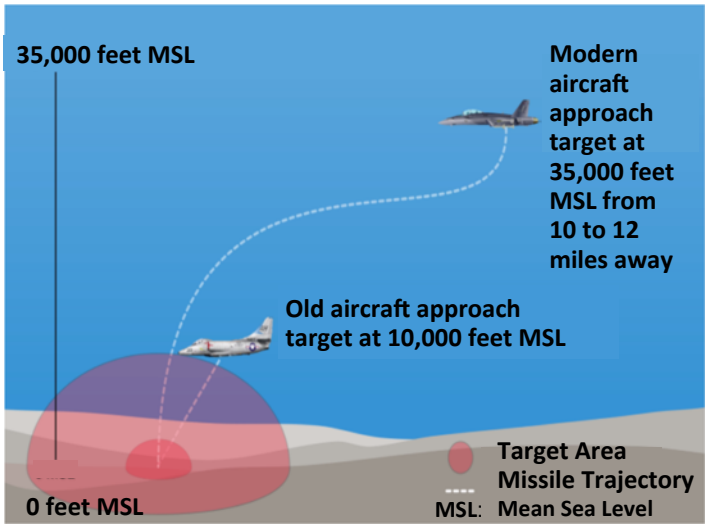

Figure 1: Current and Historic Training Space Needs

The Team faced an immovable timeline due to Congress' role in approving the proposed land withdrawal and developing appropriate legislation. Thanks to strong leadership and the dedicated efforts of skilled individuals from multiple disciplines and multiple commands, and an experienced support team of contractors, all working as a cohesive team, the EIS was completed on schedule.

Team Organization and Staffing

The Team was comprised of Navy and contractor personnel with a wide range of skills and expertise. Knowledge of aviation operations; community planning; environmental planning, compliance, and law; terrestrial biology; geology and mining; livestock grazing; transportation; noise; water rights and resources; cultural resources; recreation; socioeconomics; environmental justice; public health and safety; geographic information systems (GIS); and public affairs were all brought to bear in this effort. This vast array of expertise was required due to the range of resources for analysis and complexity of Tribal, stakeholder, and community concerns.

Table 1 provides a list of Team members critical to the successful completion of this challenging EIS. The Team proved to be agile by:

- Considering alternatives proposed by Tribes, stakeholders, and the public to determine whether the alternatives met the purpose of and need for the proposed action, operational needs, and safety requirements.
- Developing an alternative alignment, which became the Navy's preferred alternative, based on significant concerns about impacts on resources, public access, and the community character.
- Bringing in additional local expertise, as recommended by cooperating agencies, for more in-depth analysis of potential socioeconomic impacts on communities.
- Conducting supplemental ancillary studies and surveys of land and resource areas within this alternative alignment area, including securing additional funding and resources and incorporating the results into the EIS.

Table 1: Team Organization and Staffing

U.S. Pacific Fleet: Alex Stone, Program Manager; CDR Deni Baykan, Deputy Counsel
NAVFAC Southwest: Amy Kelley, NEPA Project Manager; Sara Goodwin, NEPA Project Manager; Wanda Green, Deputy NEPA Project Manager; Julia Gillespie, NEPA Planner; Michael Waters, Counsel; Roland Sosa, Ecology Study Project Manager; Lisa VanAmberg, Natural Resources Specialist; Jessica Porter-Rodriguez, Archaeologist; Alex Bethke, Cultural Resources; Geoff Buckner, Geologist; Alia Sumpter, Real Estate; Lindsey Green, Real Estate; Gene Beale, Real Estate; Lonie Cyr, Cadastral; Jerry Sain, Cadastral
Naval Air Station Fallon: Rob Rule, Installation Community Plans and Liaison Officer; Ed Rybold, Command Integrator; Mike Klapec, Installation Environmental Program Director; Marie Dreyer, Acting Installation Environmental Program Director; Ann Schofield, Natural Resources Specialist; Donna Withers, Natural Resources Specialist; Gary Cottle, Natural Resources Manager; Mike Baskerville, Archaeologist; Robin Michel, Archaeologist; Nathan Arcoraci, Environmental Planner; Scott Emmons, Environmental Protection Specialist; CDR Scott Beyer, Public Works Officer; CDR Frank Carroll, Public Works Officer; Jim Souba, Deputy Public Works; Ashley White, Public Works Planner; Melissa Murphy, Public Works GIS; Stephen McKay, Facilities Director; Douglas Nataluk, Base Planner; Steve Bonaker, Environmental Engineer; LTJG Megan Hurley, Real Estate; Christina Shell, Planning/Real Estate
Naval Aviation Warfighting Development Center: Lynn Tawney, Range Division Manager; Jerry Burns, Range Complex Sustainment Coordinator; CDR Brian Blair, Operations Officer; CDR Michael Albrecht, Operations Officer; Joy Chitwood, Range Doctrine and Risk Management
Naval Special Warfare Command: Scott Swan, Range Complex Manager; Adrianne Saboya, Environmental Program Manager
ManTech International Corporation: Larry Wolski, Project Manager; Marya Samuelson, Assistant Project Manager; Karen Waller, Quality Assurance; Allison Turner, Stakeholder Engagement and Public Involvement; Randal Farley, Military Operations Specialist; Taylor Houston, Senior Environmental Scientist; Mike Zickel, Senior Environmental Scientist; Rick Spaulding, Senior Biologist; John LaBonte, Senior Biologist; Morgan Ball, Wildlife Biologist; Alice Abela, Wildlife Biologist; Katrina Olthof, Environmental Scientist; Eli Rose, Environmental Scientist; Marisha Apodaca, Document Publication Specialist; Karyn Palma, Technical Editor; Ken Woo, IT Manager; Ryan Hoopes, GIS Analyst; Holly Kistner, Socioeconomic Analysis Support
Additional Support: Deb McKay, Regional Environmental NEPA Coordinator, Navy Region Southwest; William R. Manley, Cultural Resources, NAVFAC Headquarters; Bryana Schwarz, Archaeologist, NAVFAC Headquarters; Colleen Dingman, NEPA Project Manager, BLM; Dr. Tom Harris, University of Nevada Reno, Professor and Director Center for Economic Development

The team was able to accomplish the above actions all while staying within schedule for the completion of the Record of Decision (ROD) prior to the Congressional legislative process.

Mr. Alex Stone of the U.S. Pacific Fleet led the Team from kickoff in October 2015 through the ROD, signed in March 2020.

Leadership from the U.S. Pacific Fleet depended heavily on the Naval Facilities Engineering Systems Command (NAVFAC) Southwest Contracting Officer's Representative, first Ms. Amy Kelley followed by Ms. Sara Goodwin, for the management of schedules, budgets, and deliverables. Mr. Larry Wolski led the contractor team as Project Manager for all aspects of the EIS.

Project Description

The Navy's proposal to modernize the FRTC included renewal of the current public land withdrawal (202,864 acres); land range expansion through additional withdrawal of federal land (618,727 acres) and acquisition of non-federal land (65,159 acres); airspace expansion and modifications; and upgrades to range infrastructure. The purpose of the proposed action was to provide sustainable and modernized airspace, ranges, maneuver areas, training facilities, and range infrastructure to support acceptably realistic air training and special operations ground training to meet emergent and future threats.

Challenges and Unusual Circumstances

The Team faced several challenges and unusual circumstances while preparing the EIS and associated ancillary studies, including analysis of resources and issues that were unique or less common to Navy impact analyses and crafting appropriate mitigation measures and commitments for the implementation of the modernization action.

Analysis of unique resources. Most typical Navy NEPA projects do not involve analyses of potential impacts of a proposed action on livestock grazing, minerals and mining development, and hunting opportunities on non-Navy land. The necessary analysis of resource areas uncommon to the Navy resulted in an elevated level of coordination and collaboration with agency partners to determine or develop appropriate methodologies for analysis. For example, working closely with the Bureau of Land Management (BLM) and meeting with local or affected cattle ranchers, the Team developed methodologies for quantifying the change in Animal Unit Months on associated grazing permits, and for determining payment amounts for losses resulting from grazing permit modifications. Additionally, the Team had to consider the economic impact on counties of lost sales and tax revenue from lost grazing, hunting, and recreational activities, and changes in payments in lieu of taxes. At the recommendation of cooperating agencies, the Team brought on board a respected local professor from the University of Nevada Reno to lead the economic analysis, which increased the Navy's credibility and communities' willingness to accept the analysis findings.

The Final EIS documented the results of the environmental analysis and potential impacts of alternatives on 15 resource areas. Additionally, the Navy conducted 20 supporting studies to thoroughly review and incorporate the best available science relevant to analyzing environmental impacts. Major ancillary studies included:

- *Biological Resources Surveys:* vegetation digitization, surveys, and mapping; rare plant mapping; wetland surveys; and multiple wildlife surveys for amphibians and reptiles, birds, bats, burrowing owls, greater sage-grouse, raptors, and small mammals (over multiple years).
- *Noise Study:* data validation of existing and forecast air and ground training activities, development of noise contours for aircraft and ordnance from training activities, and creation of "delta" maps showing variances between alternatives.
- *Cultural Resources/Archaeology Report:* BLM Class I archaeological report (approximately 772,000 acres), BLM Class III pedestrian survey (approximately 40,000 acres), site recordation, and a field survey report (over multiple years).
- *Transportation/Traffic Study:* preliminary desktop assessment of traffic flow, in-person traffic counts at 20 locations, use of gate access counting devices at eight locations, and assessment of directionality and components of traffic flow (over multiple years).
- *Mineral Resources Potential Report/Preliminary Site Evaluation:* 1) identification of presence or absence of known or potential mineral resources on lands proposed for withdrawal using geologic, geochemical, geophysical, and remote-sensing data, and historic mines, prospects, and mineral occurrences, as well as coordination with the Nevada Division of Minerals for data sharing and development of mineral potential maps; and 2) analysis of surface and subsurface soils, hazardous materials, and other pertinent resources for the EIS.
- *Economic Impact Analysis Report:* analysis of impacts from changes to livestock grazing, mining, recreation, and economic development and growth.

Between the Draft and Final EIS, the Navy received numerous public comments requesting the size of the withdrawal and acquisition areas be reduced as much as possible. The Team developed an alternative alignment that reduced the size of the requested withdrawal area, shifted proposed expansion lands off important resources, reduced environmental impacts, and allowed greater public access for hunting, recreation, and resource development (Figure 2). "This alternative became the Navy's preferred alternative. With the development of the alternative alignment, the Team had to supplement or conduct additional ancillary studies and surveys of new land areas and integrate the new data and results into the EIS while adhering to schedule. The rapid provision of funding and resources for these additional studies demonstrated the level of Navy commitment to the project.

Collaborative development of mitigation measures and commitments. As part of the Navy's commitment to sustainable use of resources and environmental stewardship, the Team identified methods to avoid, minimize, or mitigate impacts where appropriate and practicable. Tribes, cooperating agencies, and other stakeholders were actively solicited for potential mitigation or management actions, which the Team evaluated for compatibility with military training activities and range safety. The Team held several mitigation working group sessions with Tribes and cooperating agencies to discuss their concerns and the feasibility of their suggested management practices or mitigation measures. The result of these efforts led to the development of a set of practical and feasible mitigation measures or actions that commit the Navy to: 1) allow continued public access to key areas of the FRTC for recreational, commercial, ceremonial, academic, and management purposes; 2) conduct additional studies, surveys, or monitoring efforts; and 3) implement procedures and practices that reduce environmental impacts.

The Navy will fund a study to further assess greater sage-grouse reactions to aircraft overflights in partnership with the Nevada Department of Wildlife.

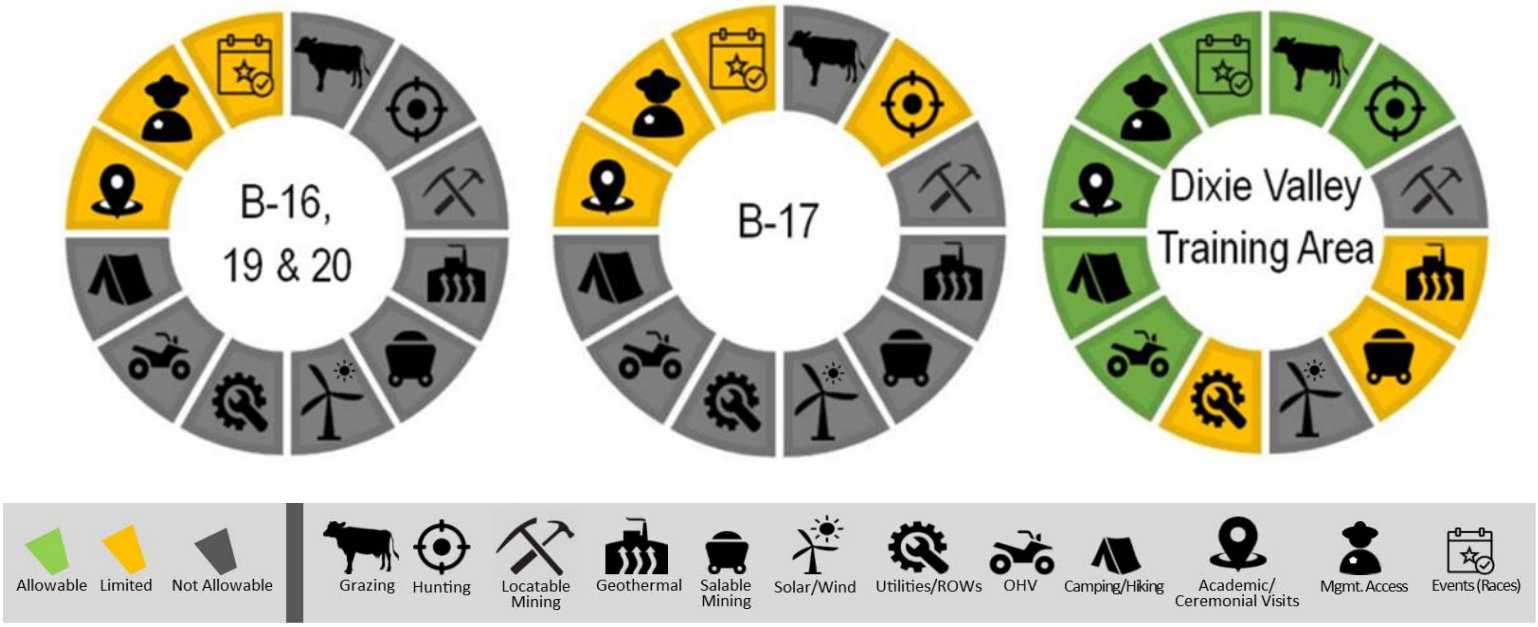

Figure 2: Activities Within the Land Areas of the Fallon Range Training Complex Under the Preferred Alternative

Key Goals of the Team were to highlight the critical role of the FRTC for training aviators and special operations forces before deployment and to demonstrate the clear purpose of and need for range modernization. Through the expansive stakeholder engagement and public involvement process, the Team raised public awareness of the importance of the FRTC in training service members and preparing them for mission success. The Team was also able to show the Navy considered all feasible options, such as moving training to other locations or modifying training parameters, and that modernization of the FRTC was the sole viable option.

Significant Accomplishments of the Team included adhering to an ambitious EIS development schedule to meet the timeline for the Congressional legislative process, while also promoting increased communication and collaboration with Tribes and cooperating agencies. This balance of soliciting stakeholder review and comment on early drafts of multiple documents and hosting workshops to collaboratively generate ideas for viable mitigation measures, while simultaneously driving the project forward to meet the schedule, were indeed major accomplishments.

Environmental Plans and Agreements

The Navy made several critical agreements with agency partners, other stakeholders, and affected businesses and individuals to: 1) promote continued coordination while implementing modernization actions, and 2) avoid, minimize, or mitigate impacts from modernization into the future. These agreements include:

- Establish and maintain a bighorn sheep hunting program on B-17 in accordance with a memorandum of understanding with the Nevada Department of Wildlife (NDOW).
- Work with federal grazing permittees to try to minimize losses resulting from cancellation of grazing permits; notify and work with holders of grazing allotments to obtain replacement forage.
- Fund a study to further assess greater sage-grouse reactions to aircraft overflights in partnership with NDOW.
- Develop a Wildfire Management Plan to reduce the risk of wildfire in the region, as well as fire suppression and post-fire rehabilitation/restoration processes in cooperation with regional stakeholders, including NDOW, BLM, and affected counties.
- Develop agreements with BLM and NDOW to continue to access previously managed areas for management purposes.
- Continue to support NDOW actions to install and maintain water guzzlers for wildlife within range or training areas.
- Recommend Congress remove the Wilderness Study Area designation from those portions of the Clan Alpine, Job Peak, and Stillwater Wilderness Study Areas within the DVTA to accommodate training activities; consult with BLM prior to their taking any federal action on proposals in these areas (e.g., issuing a permit for geothermal development) to develop means to preserve the training environment while accommodating the action.

The Navy will establish a bighorn sheep hunting program on B-17 to minimize impacts on recreation.

The Team's constant commitment and efforts to continually involve an expansive consortium of Tribal participants and cooperating agencies throughout the NEPA planning process was invaluable in reaching a ROD on schedule. Through this process, the Team was able to share the constraints and authorities by which the Navy must abide, and sought the group's feedback, expertise, and experience to develop a comprehensive analysis and design feasible mitigation measures. As a result of the establishment of respectful and effective working relationships; continual engagement, including with the Governor of Nevada and Congressional representatives; the Navy's ability to fund and conduct additional studies; and the Team's agility in incorporating the extensive feedback received, the Team was able to develop an acceptable alternative alignment that addressed stakeholder and community concerns and reduced environmental impacts, while still meeting the Navy's purpose and need, and project schedule.

Unique Aspects of Planning Effort and Management Approach

Throughout the project, key government agencies were intimately involved in the Navy planning efforts for ancillary studies and impact analyses. The Navy established a formal working arrangement with BLM to support the land withdrawal application process and coordinated closely with experienced BLM personnel on the approach to analysis, valuation methodologies, and continued land management. Additional interagency coordination with the U.S. Fish and Wildlife Service for the greater sage-grouse, the Federal Aviation Administration (FAA) for airspace modifications, the Nevada Department of Transportation for transportation studies and potential road relocations or reconfigurations, and NDOW for wildlife protections was critical.

The Tribal, stakeholder, and public engagement process was a stellar example of the benefits of early and continued coordination and collaboration to both improve public perception of the Navy and increase the public's willingness to understand and accept the decision. In addition to its successful sets of public meetings for scoping and the Draft EIS, the Navy also offered a public information session for the Final EIS to explain the significant changes made between the Draft and Final EIS. The Team also developed a novel approach for the EIS Executive Summary, designing a stand-alone brochure with a complete project synopsis including maps, photos, charts, and tables to increase public understanding of the EIS.

Benefits to the Navy, the Public, and the Environment

Benefits to the Navy. With modernization, the FRTC will be able to support assigned aviation and ground training and readiness requirements into the foreseeable future. The Navy significantly benefits through more realistic training, more efficient use of airspace, and increased standoff distances for weapons release. Modernization allows the use of precision-guided weapons to their required capabilities by aviators, and use of the full complement of weapons by SEAL teams during ground training. It also protects the capabilities of the aviation electronic warfare range, and modifies existing special use airspace to accommodate the additional training capabilities created by modernizing the range complex.

With modernization, the FRTC will be able to support assigned aviation and ground training and readiness requirements into the foreseeable future.

Benefits to the public. The Team was able to create additional benefits to the public through development of the preferred alternative, which reduced the amount of land required for modernization to the minimum amount necessary to meet requirements and maintained public access to and use of lands to the maximum extent practicable. Additionally, the Navy would relocate state routes and look for appropriate replacement routes of similar distance. The Navy will also request the FAA create *airport exclusion areas* around the Gabbs, Crescent Valley, and Eureka airports to ensure they can continue to operate. The Navy will also include Crescent Valley and Eureka as *noise-sensitive areas*.

Public access to proposed areas of expansion proved to be a contentious issue. The Navy worked closely with cooperating agencies to develop a plan for safe access to bombing ranges for specific uses; keep the DVTA open for recreation, hunting, livestock grazing, salable minerals mining, and geothermal development; allow a bighorn sheep hunting program on the B-17 range; and establish a Military Spectrum Management Area adjacent to B-17 that will remain open to public access and available for all BLM-allowable uses, including grazing, hunting, and recreation.

Benefits to the environment. The environment also benefits from the Navy's extensive and comprehensive studies and analyses and commitment to the protection of wildlife. To continue its strong partnership with NDOW, the Navy will fund a study to further assess greater sage-grouse reactions to noise from aircraft overflights. The Navy will coordinate with wildlife agencies to support guzzler access and allow controlled access to areas for livestock grazing, and a bighorn sheep hunting program will support herd management.

The Team identified new opportunities and methods to avoid, minimize, or mitigate impacts where appropriate and practicable. The Team led mitigation working group meetings with Tribes and cooperating agencies to discuss their concerns and the feasibility of their suggested management practices or mitigations. Some of the more notable commitments in the ROD include an ethnographic study and archaeological surveys of expanded bombing ranges; fire management planning; establishing additional noise sensitive areas and airspace exclusion zones; studying B-20 Navy access road alternative ingress/egress options; and hiring additional staff to facilitate conservation activities, land management, coordinating access, and tribal relations.

The Fallon Range Training Complex EIS Team in Hawthorne, Nevada, 2016

Most Outstanding Accomplishments

Through the EIS development process, the Team was able to raise public awareness of the importance of the FRTC for military readiness, communicate the critical need for range modernization, and demonstrate the Navy's commitment to work with the community toward common goals. The Team faced myriad concerns from local, state, and federal elected officials and government agencies, nongovernmental organizations, community groups, and Tribes, which were effectively managed and addressed, and led to lessons learned that were shared with the U.S. Pacific Fleet community. The Team's commitment to the Navy and to the project, and its active engagement efforts resulted in a more acceptable preferred alternative for the Navy, the public, and the environment.